The Lieberman-Warner

America's Climate Security Act

A Detailed Summary

The stated purposes of America's Climate Security Act (ACSA) are: "(1) to establish the core of a federal program that will reduce United States greenhouse gas emissions substantially enough between 2007 and 2050 to avert the catastrophic impacts of global climate change; and (2) to accomplish that purpose while preserving robust growth in the United States economy and avoiding the imposition of hardship on United States citizens."

ACSA caps emissions of the six primary greenhouse gases: CO_2, methane, nitrous oxide, sulfur hexafluoride, hydrfluoroocarbons, and perfluorocarbons. For all of those gases, ACSA uses a common unit of measurement, called a "CO_2 equivalent." A CO_2 equivalent is the quantity of a greenhouse gas that EPA determines makes the same contribution to global warming as one metric ton of CO_2.

In ACSA, each "covered facility" must, at the end of each year, submit to EPA a number of emission allowances that accounts for all of the CO_2 equivalents that the facility emitted in that year.

As a prelude to defining "covered facility," ACSA states that, for the purposes of the Act, the "electric power sector," "industrial sector," and "transportation sector" shall be delineated just as EPA delineates them in the official Inventory of US Greenhouse Gas Emissions and Sinks. The bill then declares that "covered facility" means:

- any facility within the electric power sector that contains fossil fuel-fired electricity generating units that together emit more than 10,000 carbon dioxide equivalents of greenhouse gas in any year;

- any facility within the industrial sector that emits more than 10,000 carbon dioxide equivalents of greenhouse gas in any year;

- any facility that in any year produces, or any entity that in any year imports, petroleum- or coal-based transportation fuel, the use of which will emit more than 10,000 carbon dioxide equivalents of greenhouse gas, assuming no capture and permanent sequestration of that gas; or

- any facility that in any year produces, or any entity that in any year imports, non-fuel chemicals that will emit more than 10,000 carbon dioxide equivalents of greenhouse gas, assuming no capture and destruction or permanent sequestration of that gas.

The entities that meet the definition of "covered facility" under ACSA currently are responsible for 75% of US greenhouse gas emissions. While residential and commercial boilers and space heaters are not covered by ACSA's emissions cap, the bill includes strengthened energy efficiency standards for those appliances and the buildings that contain them.

TITLE I CAPPING GREENHOUSE GAS EMISSIONS

Subtitle A Tracking Emissions

Subtitle A establishes an emissions monitoring and reporting system. It charges EPA with the task of running the system and making the data available to the public.

Subtitle B Reducing Emissions

Subtitle B directs EPA to establish a separate quantity of emission allowances, called an Emission Allowance Account, for each calendar year from 2012 through 2050. In a table, the subtitle identifies the size of each year's Account (i.e., the number of emission allowances issued for each year). The size of the 2012 Account is 5.2 billion allowances. That is the number of CO_2 equivalents that the covered facilities emitted in 2005. The number of allowances in any given year's account is 96 million fewer than the number in the immediately preceding year's account (96 million is 1.8% of 5.2 billion). The size of the 2020 Account is 4.43 billion allowances. That is the number of CO_2 equivalents that the covered facilities emitted in 1990. The size of the 2050 Account is 1.56 billion allowances. That is 70% below the number of CO_2 equivalents that the covered facilities emitted in 2005 (or 65% below the amount they emitted in 1990).

EPA will create, at the inception of the program, all of the emission allowances that will exist over the entire 38-year life of the program (all 125 billion of them). Each emissions allowance will have a unique serial number that will include the calendar year for which it was created.

Subtitle B requires the owner or operator of each covered facility, at the end of each calendar year beginning in 2012 and ending in 2050, to submit to EPA one emission allowance for each CO_2 equivalent that: "(1) was emitted by that facility during the previous year; (2) will, assuming no capture and permanent geologic sequestration of that gas, be emitted from the use of any petroleum- or coal-based transportation fuel that was produced or imported at that facility during the previous year; and (3) will, assuming no capture and destruction or permanent geologic sequestration of that gas, be emitted from any nonfuel chemical that was produced or imported at that facility during the previous year." EPA is required immediately to retire all emission allowances submitted to it pursuant to the compliance obligation.

TITLE II MANAGING AND CONTAINING COSTS EFFICIENTLY

Subtitle A Trading

ACSA allows anyone (not just owners and operators of covered facilities) to buy, hold, sell, and retire emission allowances.

Subtitle B Banking

ACSA allows the owners and operators of covered facilities to hold onto allowances as long as they wish. That way, an owner or operator will be able to maintain its own reserve of allowances.

Subtitle C Borrowing

Subtitle C directs EPA to promulgate regulations allowing the owner or operator of any covered facility to satisfy up to 15% of a given year's compliance obligation with allowances borrowed from future years. ACSA specifies a 10% annual interest rate on such "loans" and imposes a five-year limit on the term of any loan.

Subtitle D Offsets

Subtitle D directs EPA to promulgate regulations allowing the owner or operator of any covered facility to satisfy up to 15% of a given year's compliance obligation with offset allowances generated within the United States.

Offset allowances are in addition to the emission allowances that comprise the annual Accounts (caps). Offset allowances come into being when EPA certifies that a non-covered facility has done something that either has reduced the number of CO_2 equivalents that the facility otherwise would have emitted in that calendar year or has increased the number of CO_2 equivalents that the facility otherwise would have captured from the atmosphere and stored in that calendar year.

Subtitle D specifies procedures and standards that EPA must use in certifying, monitoring, and enforcing offsets. The procedures and standards spelled out in the subtitle are intended to ensure that the activities certified as offsets by EPA will actually be verified, monitored, permanent, enforced, and additional.

Subtitle E International Credits

Subtitle E directs EPA to promulgate regulations allowing the owner or operator of any covered facility to satisfy up to 15% of a given year's compliance obligation with international credits. An "international credit" is an emission allowance purchased from a foreign greenhouse gas emissions trading market that EPA certifies as having comparable integrity to the US market, and that exists by virtue of national emissions caps that EPA finds to be of comparable stringency to the caps established by ACSA.

Subtitle F Carbon Market Efficiency Board

Subtitle F establishes a Carbon Market Efficiency Board, comprising seven members serving staggered, fourteen-year terms, appointed by the President with the advice and consent of the Senate. The Board is tasked with monitoring the emissions trading market and periodically reporting to the President and Congress on its operations.

In the first two years of the cap-and-trade program, the Board is authorized to increase – above the default 15% – both the percentage of a covered facility's annual compliance obligation that may be satisfied with borrowed emission allowances and the percentage that may be satisfied with offsets. The Board may only do that, however, in the event the average daily closing price of an emissions credit exceeds the upper end of the range predicted by the Congressional Budget Office prior to the start of the program.

In all subsequent years, the Board is authorized – but only as needed to avoid significant harm to the economy – to temporarily increase the amount that covered entities may borrow, lengthen the payback period of loans, and/or lower the interest rate on loans; and to loosen a given year's economy-wide emissions cap by as much as 5%, provided that subsequent years' caps are tightened sufficiently to ensure that the cumulative emissions reductions over the long term remain unchanged.

TITLE III ALLOCATING AND DISTRIBUTING ALLOWANCES

Subtitle A Early Auctions

Subtitle A directs EPA, within 180 days of enactment, to take 6% of the allowances in the 2012 Account, 4% of the allowances in the 2013 Account, and 2% of the allowances in the 2014 Account (i.e., 616 million allowances total) and give them to the Climate Change Credit Corporation for early auctioning under Subtitle C of Title IV.

Subtitle B Annual Auctions

Subtitle B directs EPA to allocate portions of each year's Emissions Allowance Account to the Climate Change Credit Corporation for annual auctioning under Subtitle C of Title IV. A table in Subtitle B specifies the portions to be allocated for this purpose each year. The portion in 2012 is 18% (6% of the 2012 Account having been allocated for early auctioning). The portion rises steadily each year and then plateaus at 73% from 2036 through 2050.

Subtitle C Early Action

Subtitle C directs EPA, within 2 years of enactment, to take 5% of the allowances in the 2012 Account, 4% of the allowances in the 2013 Account, 3% of the allowances in the 2014 Account, 2% of the allowances in the 2015 Account, and 1% of the allowances in the 2016 Account (i.e., 760 million allowances total) and allocate them to owners and operators of covered facilities as reward for actions taken since January 1, 1994 to reduce greenhouse gas emissions. 1994 is the year in which the Rio Treaty took effect, thereby obligating the US to reduce its greenhouse gas emissions.

Subtitle C directs EPA to promulgate regulations setting forth procedures and criteria for distributing the early action allowances to individual owners and operators of covered facilities.

Subtitle D States

Subtitle D directs EPA each year to allocate 1% of that year's Account to state governments that have demonstrated that at least 90% of new buildings constructed in the state comply with the energy efficiency building codes established under Subtitle B of Title V;

The subtitle directs EPA each year to allocate an additional 1% of that year's Account to states that have adopted "de-coupling" regulations for any electric and natural gas utilities in the state. De-coupling policies enable energy utilities to recover just as much money for investments in demand reduction measures as they recover for investments in satisfying demand.

Subtitle D directs EPA each year to allocate an additional 2% of that year's Account to state governments that have imposed on covered facilities within their borders greenhouse gas emissions limitations more stringent than those established by ACSA.

Finally, Subtitle D directs EPA each year to allocate an additional 5% of that year's Account to all state governments. EPA is directed to distribute the allowances to individual state governments based on the following formula: 1/3 based on Low Income Home Energy Assistance Program expenditures; 1/3 based on population; 1/3 based on "quantity of carbon dioxide embedded within coal that is mined, natural gas that is processed, and petroleum that is refined within the boundaries of a State, as determined by the Secretary of Energy."

States are directed to retire or use for the following purposes at least 90 percent of the allowances that they receive under Subtitle D:

- to mitigate impacts on low-income energy consumers;
- to promote energy efficiency (including support of electricity and natural gas demand reduction, waste minimization, and recycling programs);
- to promote investment in nonemitting electricity generation technology;
- to improve public transportation and passenger rail service and otherwise promote reductions in vehicle miles traveled;
- to encourage advances in energy technology that reduce or sequester greenhouse gas emissions;
- to address local or regional impacts of climate change, including the relocation of communities displaced by the impacts of climate change;
- to mitigate obstacles to investment by new entrants in electricity generation markets and energy-intensive manufacturing sectors;
- to address local or regional impacts of climate change policy, including providing assistance to displaced workers;
- to mitigate impacts on energy-intensive industries in internationally competitive markets;
- to reduce hazardous fuels, prevent wildland fire, and suppress wildland fire; or
- to fund rural, municipal, and agricultural water projects that are consistent with sustainable use of water resources.

Finally, Subtitle D directs EPA, in consultation with the Secretary of the Interior, to establish a Program for Tribal Communities to deliver assistance to those tribal communities within the borders of the United states that face disruption or dislocation as a result of global climate change. EPA is directed to allocate 0.5% of the Emission Allowance Account to the program once it is established, and to take the 0.5% from the 5% general allocation to states.

Subtitle E Electricity Consumers

Subtitle E directs EPA each year to allocate 10% of that year's Account to the load serving entities that have a regulatory or contractual obligation to deliver electricity to retail consumers. EPA is directed to distribute the allocated allowances to each individual load serving entity in proportion to the amount of electricity that the entity sells. The load serving entities are directed to use the value of the allowances for two purposes only: "(1) to mitigate economic impacts on low- and middle-income energy consumers, including by reducing transmission charges or issuing rebates; and (2) to promote energy efficiency on the part of energy consumers."

Subtitle F Bonus Allowances for Carbon Capture and Geologic Sequestration

Subtitle F directs EPA, within three years of enactment, to take 4% of the allowances in the Accounts for years 2012 through 2035 (i.e., 3.932 billion allowances total) and place them into a Bonus Allowance Account. EPA is directed to allocate the allowances as reward for firms that actually inject CO_2 resulting from electricity generation into geological formations. The number of bonus allowances that a firm receives for injecting a metric ton of CO_2 underground starts out at 4.5 in 2012 and gradually decreases, until it reaches zero in 2040.

Subtitle G Domestic Agriculture and Forestry

Subtitle G directs EPA each year to allocate 5% of that year's Account to the Secretary of Agriculture, who is directed to use the allowances to reward US farmers and foresters that adopt practices that increase the storage of CO_2 in plants and soils. The Secretary of Agriculture is directed to promulgate regulations to manage the distribution of allowances to farmers and foresters. The subtitle prohibits a single activity from both being certified as an offset and receiving bonus allowances.

Subtitle H International Forest Protection

Subtitle H directs EPA each year to allocate 3% of that year's Account for reducing the rate of tropical deforestation in other nations. The subtitle sets out the structure of a distribution and verification program to be overseen by EPA, the State Department, the Department of Interior, and the Department of Agriculture.

Subtitle I Covered Facilities

Subtitle I directs EPA to allocate the remainder of each year's Account to covered facilities within the electric power and industrial sectors. The subtitle sets forth the annual percentages in a table. Each of the sectors receives an identical percentage each year. The percentage is 20% from 2012 through 2016. The percentage then declines one point each year, such that it reaches zero in 2036.

Subtitle I specifies that allowances are to be allocated to individual covered electric power and industrial facilities in proportion to their recent, historical emissions. EPA is directed to set-aside some percentage of the allocation each year for distribution to new entrants. Allowances within the new entrant set-aside are to be distributed to individual new entrant facilities in proportion to their product output.

TITLE IV AUCTIONS AND USES OF AUCTION PROCEEDS

Subtitle A Funds

Subtitle A establishes four new funds in the US Treasury: (1) the Energy Assistance Fund; (2) the Climate Change Worker Training Fund; (3) the Adaptation Fund, and (4) the Climate Change and National Security Fund.

Subtitle B Climate Change Credit Corporation

Subtitle B establishes the Climate Change Credit Corporation. The Corporation shall have a board of directors composed of five individuals appointed by the President, by and with the advice and consent of the Senate, for staggered five-year terms.

Subtitle C Auctions

Subtitle C directs the Corporation, within one year of enactment, to begin auctioning the allowances allocated to it for early auctioning under Subtitle A of Title III. It directs the Corporation to have completed auctioning the last of those allowances by the end of 2011. The subtitle directs the Corporation to devote all the proceeds of the early auctions to the Energy Technology Deployment Program established under Subtitle D of Title IV.

Subtitle C directs the Corporation, within the first 30 days of each calendar year, to auction all of the allowances allocated to it for annual auctioning under Subtitle B of Title III. It directs the Corporation to devote 55% of the proceeds from those annual auctions, each and every year from 2012 through 2050, to the Energy Technology Deployment Program established under Subtitle D of Title IV. It directs the Corporation to deposit 20% of the proceeds each year into the Energy Assistance Fund, 20% into the Adaptation Fund, and 5% into the Climate Change Worker Training Fund.

Subtitle D Energy Technology Deployment

Subtitle D spells out, in detail, a series of financial incentive programs designed to accelerate the development and deployment of renewable electricity technologies, low-carbon electricity technologies, advanced bio-fuels such as cellulosic ethanol, CO_2 capture and storage systems, electric and plug-in hybrid electric vehicles, and high-efficiency consumer products.

Subtitle E Energy Consumers

Subtitle E directs that all funds deposited into the Energy Assistance Fund under Subtitle C of Title IV shall be made available to the Low Income Home Energy Assistance Program (LIHEAP) (50%), the Weatherization Assistance Program for Low-Income Persons (25%), and a new Rural Energy Assistance Program (25%).

Subtitle F Climate Change Worker Training Program

Subtitle E directs that all funds deposited into the Climate Change Worker Training Fund under Subtitle C of Title IV shall be used by the Department of Labor to fund a new workforce education, training, and placement program spelled out in the subtitle.

Subtitle G Adaptation Program for Natural Resources in United States and Territories

Subtitle G directs that all funds deposited into the Adaptation Fund under Subtitle C of Title IV shall be used as follows:

- 40% shall be made available to the Interior Department, and subsequently made available to states and tribal governments, through the Wildlife Conservation and Restoration Account established under the Pittman-Robertson Wildlife Restoration Act.

- 20% shall be made available to the Interior Department for use in funding endangered species, migratory bird, and other fish and wildlife programs.

- 5% shall be made available to the Interior Department for implementing cooperative grant programs that benefit wildlife.

- 5% shall be made available to the Secretary of Agriculture for use in funding adaptation activities carried out on National Forests and National Grasslands under the jurisdiction of the United States Forest Service.

- 12.5% shall be made available to EPA for use in restoring large-scale freshwater and estuarine ecosystems and large-scale estuarine ecosystems.

- 12.5% shall be made available to the Army Corps for use in restoring large-scale freshwater and estuarine ecosystems.

- 5% shall be made available to the Commerce Department for use in implementing cooperative grant programs such as the Coastal and Estuarine Land Conservation Program, the Community-Based Restoration Program, and programs established under the Coastal Zone Management Act.

Subtitle H Climate Change and National Security Program

Subtitle H establishes a Climate Change and National Security Council. The Secretary of State is the Council's chair, and the EPA Administrator, the Secretary of Defense, and the Director of National Intelligence are the Council's other members.

The Council is directed to report annually to the President and the Congress on the extent to which global climate change, through its potential negative impacts on sensitive populations and natural resources in different regions of the world, may threaten, cause, or exacerbate political instability or international conflict in those regions. Each report is required to recommend uses for the US to make of funds made available under the subtitle to mitigate or forestall political instability and international conflict in the regions in question through actions designed to enable the sensitive populations and natural resources in question to adapt to, endure, or avoid negative global climate change impacts.

Subtitle H provides that when the President makes a determination, based on one of the Council's reports, that funds are warranted to carry out the recommendations in the report, the Climate Change Credit Corporation must deposit 5 percent of the proceeds from auctioning that the Corporation conducts in that year into the Climate Change and National Security Fund (with the 5 percent being taken pro rata from the other, default uses of auction proceeds), and the President must use the funds to implement the Council's recommendations.

Subtitle I Audits

Subtitle I directs the Comptroller General to review and audit the expenditures under Title IV no later than January 1, 2014, and every third year thereafter, in order to determine the efficacy of the programs, expenditures, and projects funded under the title.

TITLE V ENERGY EFFICIENCY

Subtitle A Appliance Efficiency

Subtitle A incorporates the strengthened energy efficiency standards for residential boilers, space heaters, and air conditioners that the House passed this summer as part of its energy bill.

Subtitle B Building Efficiency

Subtitle B incorporates the strengthened model energy efficiency rule for building codes that the House passed this summer as part of its energy bill. Adoption and enforcement of the strengthened model rule makes a state eligible for allowances under one of the 1% set-asides established under Subtitle D of Title III.

TITLE VI GLOBAL EFFORT TO REDUCE GREENHOUSE GAS EMISSIONS

Title VI closely tracks the international trade measure that appears in the Bingaman-Specter climate bill, S.1766.

Under this provision, the Executive Branch is directed, upon ACSA's enactment, to intensify its efforts to convince other nations to start reducing their greenhouse-gas emissions. If, eight years after the enactment of the US program, it is determined that a given major emitting nation has not taken comparable action, the President at that time is authorized to require that importers of greenhouse-gas-intensive manufactured products (steel, aluminum, etc.) from that nation submit emissions credits of a value equivalent to that of the credits that the US system effectively requires of domestic manufacturers.

TITLE VII REVIEWS

Title VII directs EPA to commission from the National Academy of Sciences (NAS) two types of report to be delivered to Congress every three years. The first is a broad review to determine: (1) whether the cap-and-trade system is functioning properly; (2) whether the emissions trading market is liquid, transparent, and relatively free of dangerous volatility; (3) whether US emissions are coming down as projected; (4) whether atmospheric greenhouse gas emissions are stabilizing, on account of US and overseas emissions trends; (5) whether any of the allocations or uses of auction proceeds should be changed; and (6) whether additional measures are required to protect low- and moderate- income Americans to cope with cost changes.

The second periodic NAS report to Congress is specifically on technology and the emissions caps. NAS is directed to examine the impact that ACSA's technology deployment programs are having, and to determine whether advanced climate-friendly energy technologies are deploying quickly enough to enable the US economy to comply with ACSA's emissions caps without suffering hardship. NAS will be tasked with recommending to Congress a tightening or a loosening of the emissions caps based on its findings.

Title VII also directs EPA to conduct and submit to Congress the agency's own, one-time report and recommendations with respect to policies, outside of the cap-and-trade system, that Congress should consider enacting in order to achieve greater emissions reductions specifically from the transportation sector of the US economy.

Finally, Title VII directs EPA, in consultation with several other agencies, to perform regionally-specific analyses of the new infrastructure, safety, health, land-use planning policies that will be necessary to enable the US to adapt to the degree of climate change that now is inevitable.

TITLE VIII FRAMEWORK FOR GEOLOGIC SEQUESTRATION OF CARBON DIOXIDE

Title VIII initiates a series of rulemakings, geological surveys, technical reviews, and panels of legal experts designed to pave the way for the rollout of a national infrastructure for taking CO_2 from power plants, through pipelines, to injection wells, and then deep underground.

TITLE IX MISCELLANEOUS

The first section of Title IX authorizes the President to suspend the provisions of the bill in the event of a national emergency.

The second section requires the Securities and Exchange Commission to promulgate regulations requiring publicly traded companies to begin disclosing global warming related financial risks to shareholders.

The third section makes the actions that EPA takes pursuant to ACSA subject to the administrative procedures and judicial review provisions of the Administrative Procedures Act and the Clean Air Act.

The fifth section makes clear that states are not preempted from enacting and enforcing greenhouse gas emission reduction requirements that are at least as stringent as the federal ones.